

DRAFT ORGANICS STUDY AND ACTION PLAN

For Organics Subcommittee Review and Discussion

February 15, 2012

Background

The Draft 2010-2020 Solid Waste Master Plan calls for the Massachusetts Department of Environmental Protection (MassDEP) to aggressively pursue diversion of food and other organic materials from the solid waste stream. Representing more than 25% of the waste stream in Massachusetts after recycling, food waste, compostable paper and other organics are the largest fraction of the remaining waste¹. In order to achieve the Commonwealth's overall solid waste management goals of reducing the waste we dispose of by 30% by 2020, a concerted effort must be made to recover these organics materials. The Solid Waste Master Plan set a specific objective to:

Divert at least 35% of food waste from disposal by 2020, which would result in more than 350,000 tons per year of additional diversion activity from targeted business and institutional sectors including:

- hotels
- convention centers
- supermarkets
- food waste processors
- large institutions.

MassDEP's Clean Energy Results Program calls for development of a study and action plan to identify barriers to meeting the state's organic diversion goals and recommend strategies to overcome those barriers. This study is based on a series of stakeholder meetings, discussions, research, and information gathering that MassDEP has conducted with external stakeholders, beginning with prior Organics Subcommittee meetings, the development of the draft Master Plan, and the Commonwealth's Organics Task Force and Workgroups that held a series of meetings in 2011. This document is also informed by several pieces of analysis including the food waste density mapping study and recently completed waste composition studies. MassDEP also considered the results of a number of organics diversion projects already underway in Massachusetts and elsewhere.

This Action Plan lays out the programs and initiatives to be pursued over the next several years in order to obtain this objective. This effort will take collaboration from a number of stakeholders including state and local government, businesses, institutions, the solid waste industry and private developers.

¹ Given relatively high rates of leaf and yard waste diversion, this Plan does not focus on those materials, though they may be combined with food waste in some facilities.

The Action Plan identifies the primary barriers to achieving the Commonwealth's organics diversion objective in four categories:

- Data Analysis,
- Collection Infrastructure,
- Processing Capacity/ Market Development, and
- Regulatory Reform/Waste Ban.

Data Analysis

Barrier: Lack of Information on Sources and Amounts of Food Waste

Stakeholders need better information on organics generation and disposal. This information helps generators, collectors and processors of organics make sound infrastructure investments. This information also helps direct government assistance programs.

Actions	
Update food waste density mapping study – This identifies major generators of food waste and can assist haulers and processing facilities with routing and facility siting. <ul style="list-style-type: none">○ Data updated summer 2011- will post updated data to MassDEP web site	Feb 2012
Conduct further analysis of organics portion of waste stream from Massachusetts waste composition studies <ul style="list-style-type: none">○ Confirm residential and ICI composition averages and breakdowns by truck type	Mar 2012
Assess food waste generation data <ul style="list-style-type: none">○ Work with the Lead by Example Program to quantify current food waste diversion by State facilities. Also gather sector based information on how to advance organics at colleges/universities, hospitals, corrections, convention centers.○ Survey large food manufacturers/processors and other large generators to get more information on their organics generation	July 2012
	Dec. 2012
Establish baseline and develop program measurement and monitoring protocol for statewide efforts (permitted capacity, tons diverted, etc.)	Dec. 2012

Collection Infrastructure

Barrier: Lack of Collection and Separation Systems at Generators

Diversion of organics has primarily been done by generators that create significant quantities of organics and have the foresight and management support to advance aggressive recycling programs. Generators need more information, research and technical and financial support to build more robust collection and management systems.

Actions	
Determine sectors and businesses most likely to be impacted by proposed waste ban, as defined	Mar 2012
Develop sector specific best management practices for organics collection programs (supermarkets, hospitals, hotels, etc.) <ul style="list-style-type: none"> ○ Case Studies ○ How To Workbooks ○ Education and Promotion 	Jul 2012
Establish technical assistance and grant programs to divert food waste from public colleges/universities, hospitals, corrections/DHS. <ul style="list-style-type: none"> ○ Prioritize sectors ○ Develop and begin Technical Assistance Services ○ Grants for collection containers and other capital for collection 	Jul 2012 Sept 2012
Establish technical assistance and loan programs to divert food waste from private colleges/universities, hospitals, nursing homes, hotels, large restaurants. <ul style="list-style-type: none"> ○ Prioritize sectors ○ Begin Technical Assistance Services ○ Establish regulatory relief and recognition programs 	Jul 2013 2013-14
Pilot organics diversion programs at large generators and publish and share case studies (supermarkets, convention centers, food processors, hospitals, colleges and universities, hotels, etc)	Ongoing
Continue to support and expand organics diversion program with supermarkets <ul style="list-style-type: none"> ○ Continue Supermarket Recycling Certification Program ○ Provide technical assistance to supermarkets not currently diverting ○ Get all supermarkets diverting by 2014 	Ongoing Mar 2012 Dec 2014
Establish direct technical assistance effort for food manufacturers and processors by	Dec 2012

offering free waste audits and program development consulting assistance	
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Barrier: Insufficient Collection Services

To stimulate competition and reduce costs, more collection service is needed. Generators need to know who can provide service and be able to negotiate for service amongst multiple collectors. Haulers of organics need to achieve route density in order to provide competitive collection services. New collection methods and technologies need to be reviewed and tested.

Actions	
Provide updated information on Massachusetts food waste processors and haulers (materials accepted, quantities, collection type, etc.)	Mar 2012
Provide financial assistance to existing and potential haulers to initiate organics collection efforts <ul style="list-style-type: none"> ○ Establish low interest loan program for collection containers and capital equipment through the Recycling Loan Fund 	Jan 2012
Work with regional groups to develop small generator collection routes <ul style="list-style-type: none"> ○ Provide case studies and “how to” information to regional groups (chambers, chain stores, municipalities) to form cooperative collection routes ○ Offer grants to fund the establishment of regional collection networks ○ Offer grants to purchase collection containers 	Jul2013 Jul 2012 Jul 2012
Support efforts to collect organics from residential sources <ul style="list-style-type: none"> ○ Offer grants to municipalities to pilot collection ○ Offer grants for capital equipment to collect organics at drop-off locations ○ Continue to offer and encourage technical and financial assistance for backyard composting and other on-site solutions 	Ongoing Ongoing Ongoing
Disseminate information on success stories and recognize specific efforts, including efforts to reach the hauling community <ul style="list-style-type: none"> ○ Offer training for Public Health Officials on requirements for dumpster/trash storage areas to better facilitate collection 	Ongoing

Processing Capacity/ Market Development

Barrier: Insufficient Processing Capacity

Once collected, source separated organics must have a place to go. Although Massachusetts has a number of entities accepting organics for processing and this number is growing, additional capacity is still needed in order to achieve the 350,000 tons of additional organics diversion.

Actions	
Disseminate information on technologies and financial assistance programs <ul style="list-style-type: none"> ○ Prepare financial assistance matrix ○ Create web resources on technologies and case studies ○ Disseminate information on how best to handle lower quality organics (residential, small business) 	Feb 2012 Jul 2012 2014
Encourage municipal expansion of existing composting operations and siting of new operations <ul style="list-style-type: none"> ○ Solicit proposals for feasibility studies through SMRP Municipal Grant Program ○ Provide capital grants or per ton subsidies to municipal operations managing organic material through SMRP Municipal Grants ○ Offer training, technical support and information through MACs and staff ○ Establish simple certification form for small organics operations at municipal sites 	July 2012 July 2012 Sept 2012 Sept 2012
Develop Anaerobic Digestion Facility on State Property <ul style="list-style-type: none"> ○ Identify state properties for potential private development of organics management facilities ○ Develop agreements with host agency ○ Issue RFP for selection of developer ○ Work with MassPort to identify and develop potential site 	Feb 2012
Encourage new private development or expand existing organics management capacity <ul style="list-style-type: none"> ○ Provide aggressive low interest loans for private facility development through the Recycling Loan Fund ○ Pre-permitting assistance ○ Promote more capitalization of existing farm composting/AD operations ○ Support new farm operations 	Jan 2012 Ongoing

Regulatory Reform/Waste Ban

Barrier: Regulatory Environment that Is Unclear and Considered Cumbersome

The lack of clear permit pathways for organics processing facilities that employ advanced technology such as anaerobic digestion, and concerns about the applicability of the local site assignment process to such facilities, has been a barrier to the expansion of organics capacity in the Commonwealth. Revising the State's solid waste siting regulations to address these issues will help facilitate development of new and expanded capacity.

Actions	
Revise Regulations to: <ul style="list-style-type: none"> ○ Consider operations that collect, process and recover organic materials as recycling facilities, not solid waste facilities subject to Site Assignment ○ Establish levels of MassDEP review that maintain environmental and public health protection. ○ Provide a clear permitting pathway with site specific MassDEP approvals. ○ Allow wastewater treatment plants to accept organics for processing. 	Mar 2012
Establish Guidelines and Forms necessary for implementation of the Regulations	Jun 2012

Barrier: Need for Steady Supply of Source Separated Organics

Public and private investment in collection systems and processing capacity of organics is contingent on these entities having confidence that a sufficient amount of organic material will be available. While some generators have established programs without a ban, a waste ban is necessary to drive widespread adoption of organics diversion.

Actions	
Implement Waste Ban on Organic Materials <ul style="list-style-type: none"> ○ Develop in coordination with the SWAC Organics Subcommittee the framework for a ban on commercially generated organic materials in 2014 ○ Promulgate Organics Ban regulations ○ Update Facility Waste Ban Plans ○ Effective date of Ban – July 1, 2014 	Sept 2012 Jun 2013 Mar 2014 Jun 2014

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